

19980615.qrp v01_n123.qrs.980615

Date: Mon, 15 Jun 1998 19:03:27 EDT
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 1123

QRP-L Digest 1123

Topics covered in this issue include:

- 1) [13151] Simple Transverters
by d.nordquest@juno.com
- 2) [13152] HW-8 connector
by "Ron Polityka" <wb3aal@talon.net>
- 3) [13153] Field Day
by Mark Kesner <marklori@visuallink.com>
- 4) [13154] Re: FS stuff
by "J. Skalski" <jskalski@acsu.buffalo.edu>
- 5) [13155] KL Field Day Update
by Paul Stroud <aa4xx@ipass.net>
- 6) [13156] TEN METER AM QRP TODAY!
by Mike Duke <K5xu@cris.com>
- 7) [13157] LOOKING FOR HW-202 CRYSTALS or TOUCHTONE MIC
by Mike Duke <K5xu@cris.com>
- 8) [13158] Re: Field Day
by Ed <edn4pk@voyageronline.net>
- 9) [13159] NOUR
by Wayne Alexander <walexander@wwn.net>
- 10) [13160] Re: Humour
by Thomas Isgro <kc8dgu@postoffice.worldnet.att.net>
- 11) [13161] Argosy II and Voice Snthesizer is gone!
by William Keith Hibbert <wb2vuo@frontiernet.net>
- 12) [13162] Swap Ten Tec 1208 for 1209
by William Keith Hibbert <wb2vuo@frontiernet.net>
- 13) [13163] RE: Coax / Dipole Thread
by aweiss@usd.edu (A. Weiss)
- 14) [13164] My goat ate my dipole :-(
by W7LS <w7ls@blarg.net>
- 15) [13165] Re: My goat ate my dipole :-(
by "Steve Hurst" <shurst@magiclink.com>
- 16) [13166] Re: AD9850 DDS Problems
by Charlos Potma <Charlos.Potma@rivm.nl>
- 17) [13167] Appalachian Trail and 7.04 MegaCycles
by aa5yx@juno.com (John Harper)
- 18) [13168] FS Rohn Tower parts
by Richard Powell <ripowell@mpna.com>
- 19) [13169] T-T Filters for Argosy-II

- by k7sz@juno.com (Rick Arland)
- 20) [13170] Fishin'
by Peter_Simpson@ne.3com.com
- 21) [13171] FS: New Timewave 599ZX
by "Wilford D. Lindsey" <70511.3041@compuserve.com>
- 22) [13172] Indiana QRP Club
by Jim Osburn <wd9eyb@butler.indiana.net>
- 23) [13173] Need schematic or service manual
by David Shalita <af389@lafn.org>
- 24) [13174] Re: My goat ate my dipole :-(
by kt3a@juno.com (Cameron C.R. Bailey)
- 25) [13175] WTB: TENTEC 515 ARGONAUT
by Dennis Brickey <n4dd@preferred.com>
- 26) [13176] New(?) interface at QRZ
by Bill Jones <kd7s@psnw.com>
- 27) [13177] QRP ++ and Companion For Sale
by "Keith M. Hamilton" <khamilton@cisnet.com>
- 28) [13178] AD9850 startup problems
by Pierre Constantineau <pierre@cmpe.ubc.ca>
- 29) [13179] Re: My goat ate my dipole :-(
by "Mark E. Monninger" <markem@primenet.com>
- 30) [13180] Re: Elmer 200 Series
by Tellefsen Bob-CNSE97 <cns97@lmpsil02.comm.mot.com>
- 31) [13181] Re: My goat ate my dipole :-(
by kaliic <kaliic@ime.net>
- 32) [13182] Re: Elmer 101
by Michael Maiorana <mikemo@ibm.net>
- 33) [13183] FS: MFJ-969 Tuner
by Dan Baldwin <baldwin@primenet.com>
- 34) [13184] thanks qrp-l another upgrade
by eakwik@mail.hac.com
- 35) [13185] Double Bazooka
by Bruce Rattray <rattray@gpfn.sk.ca>
- 36) [13186] TV ads, braising aluminum
by mike@krypton.nmr.Hawaii.Edu (Mike W. Burger)
- 37) [13187] Re: Online Grid Maps
by Bill Howell <bhowell@mail.utexas.edu>
- 38) [13188] 80 meter S&S TAC-1 For Trade
by "Kelly Ellison" <kelman@dialnet.net>
- 39) [13189] Battery Free QRP?!?!
by "Bryan Turner" <turnerw@email.uah.edu>
- 40) [13190] Next Iowa QRP meeting 6/20/98
by John Burnley <JBurnley@ifmc.org>
- 41) [13191] Re: Battery Free QRP?!?!
by W7LS <w7ls@blarg.net>
- 42) [13192] Star Party "W5P" SES reminder this coming weekend
by wa5whn@juno.com
- 43) [13193] Dans Centennial XCVR comments?

- by Michael Maiorana <mikemo@ibm.net>
- 44) [13194] QRP without Batteries
by Jerry Parker <jparker@fix.net>
- 45) [13195] Re: Battery Free QRP?!?!
by KC5TJA <kc5tja@topaz.axisinternet.com>
- 46) [13196] 160 Meter Skeds.
by Ed Loranger <we6w@qsl.net>
- 47) [13197] FS: NIR-12 DSP unit
by "Allan G. Taylor" <ataylor@heracles.llnl.gov>
- 48) [13198] RE: QRP without Batteries
by "Kevin Muenzler WB5RUE" <wb5rue@stic.net>
- 49) [13199] Re: Battery Free QRP?!?!
by Thomas Jennings <jennings@eng14.rochny.uspra.abb.com>
- 50) [13200] Help identifying power MOSFETs
by John Fletcher <johnf@innotts.co.uk>
- 51) [13201] International QRP Day Contest
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
- 52) [13202] Fine example of homebrew
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
- 53) [13203] RIT on the Argosy-II (525D)
by k7sz@juno.com (Rick Arland)
- 54) [13204] JPS ANC4 fs
by "J. Skalski" <jskalski@acsu.buffalo.edu>
- 55) [13205] RE: Help identifying power MOSFETs
by "L. Mark Pilant - MS ZK03-4/Y02 DTN 264-1529" <pilant@seesaw.ENET.dec.com>
- 56) [13206] Have you been there?? Super site!!
by ARDUJENSKI@aol.com
- 57) [13207] Elmer101:(long) discussion of Q5,T4
by Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>

Date: Sun, 14 Jun 1998 19:18:36 EDT
From: d.nordquest@juno.com
To: qrp-l@Lehigh.EDU
Subject: [13151] Simple Transverters
Message-ID: <19980614.192127.4751.0.d.nordquest@juno.com>

For milliwatting with a very simple transverter, it would be convenient to use a high-level balanced or double-balanced mixer without any following amplifier. Are there mixers capable of delivering significant milliwatts at an inexpensive price? I'd be grateful for any suggestions.

73, Dave KE9ED

You don't need to buy Internet access to use free Internet e-mail.

Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Sun, 14 Jun 1998 19:45:28 -0400
From: "Ron Polityka" <wb3aal@talon.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [13152] HW-8 connector
Message-ID: <002701bd97ee\$84f98e80\$1b5445c6@default>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello All,

Anyone know what the part # from Amp is for the
HW-8 power plug?

Thanks in advance for the replies.
73, Good DXing & QRPing
Ron de WB3AAL

E-mail: wb3aal@talon.net
http://www.kpsnet.com/wb3aal/Start_Page.htm
BBS: WB3AAL @ WB3FYL.#BER.PA.USA.NA

EPA QRP # 1 QRP # 5318 10-10 # 13173
QRP-L # 1099 G-QRP # 3031 AK QRP # 309
Adventure Radio Society #380
Bumblebee #84

Date: Sun, 14 Jun 1998 19:47:35
From: Mark Kesner <marklori@visuallink.com>
To: qrp-l@Lehigh.EDU
Subject: [13153] Field Day
Message-ID: <3.0.5.16.19980614194735.22b75972@visuallink.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Gang,

After a bit of building and purchasing of some basic camping gear, I am ready to dive into field day with zeal! I recently completed my SW40+, LED Keyer, and Norcal paddles. These, along with a homemade wire antenna which I haven't decided on yet will accompany me to the top of our little 6 acre farmette for a solo single band field day effort. I know, not a REAL outdoor adventure, but it's what I have the time and resources for at this time.

I am particularly proud of the homebrewed station since I have only been playing with QRP and kit building for a little less than a year. I was sorry to jump ahead of the Elmer101 group, but had my doubts as to whether we would be done in time for FD.

This will be a very relaxed effort and my first FD in a few years (first ever QRP) so I'll just be having fun! I'll be playing with the rig between now and then, so if you hear me give a shout!

72

Mark
KC4GIA

Date: Sun, 14 Jun 1998 19:51:31 -0400 (EDT)
From: "J. Skalski" <jskalski@acsu.buffalo.edu>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [13154] Re: FS stuff
Message-ID: <Pine.GS0.3.96.980614195105.7454F-100000@joxer.acsu.buffalo.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

sorry for the bandwidth...the AT-11 has been sold.

73,

Jim N2GO
The Buffalo QRP CONNECTION
ARCI #9013 QRP-L #381
Life member ARRL
jskalski@acsu.Buffalo.EDU

Date: Sun, 14 Jun 1998 19:41:10 -0400
From: Paul Stroud <aa4xx@ipass.net>
To: klqrp <klqrp@waterw.com>, QRP-L <QRP-L@Lehigh.EDU>
Subject: [13155] KL Field Day Update
Message-ID: <35845F96.C7A4A138@ipass.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Gang,

We welcome the folks below who will be visiting and operating with us for KL Field Day, which is just two weeks away during the weekend of June 27-28th.

The location of our FD site is 12 miles south of Raleigh, NC (1318 Alderman Circle Raleigh, NC) at the farm of AA4XX.

Directions are as follows:

>From Greensboro and points north take I-40 East to Raleigh.
Follow I-40 around the south side of Raleigh.
Take the exit marked South Saunders Street SOUTHBOUND (Exit 298A).
Follow highway markers for 401 South.
Approximately 10 miles south of Raleigh look for Wake Technical College on your left.
Continue 1 mile further south on 401S and turn left onto BANKS ROAD.
Follow Banks Rd approx 1 mile and turn right onto ALDERMAN CIRCLE.
Follow Alderman until it dead ends into a Tee at the stopsign.
Turn LEFT (dirt road) and take the second driveway on your left.
At the entrance to the driveway, you'll see a black mailbox with a brown horse painted on it. You'll also see two small red barns and a split rail fence at the entrance. Take the long gravel driveway up to the log house.

>From Coastal SC take I-95N to I-40 Westbound
>From I-40 take the Hwy 42 Exit, proceeding Westbound on 42 to Fuquay-Varina.
Hwy 42 will intersect Highway 401 on the east side of Fuquay.
Take Hwy 401 Northbound toward Raleigh.
Proceed approx 6 miles on 401N, turning RIGHT onto BANKS ROAD.
Follow Banks Rd approx 1 mile and turn right onto ALDERMAN CIRCLE.
Follow Alderman until it dead ends into a Tee at the stopsign.
Turn LEFT (dirt road) and take the second driveway on your left.
At the entrance to the driveway, you'll see a black mailbox with a brown horse painted on it. You'll also see two small red barns and a split rail fence at the entrance. Take the long gravel driveway up to

the log house.

My XYL will be visiting her sister out of town FD weekend, so we hams will have the free run of the house. Two bathrooms will be available in the house. Those who don't wish to battle the nighttime flying insects may spread their sleeping bags on the living room floor.

For food, you may either bring sandwich stuff or something to cook on the outside grill. Bring a cooler to keep your drinks and food cool.

Tents are recommended as shelter from the weather and from the "sketters."

At this time we are planning on operating from 5-6 stations. Here's a tentative breakdown:

- 1) WA4NID - HF/VHF (2M) digital modes
- 2) N7RI - VHF (6M) CW/SSB/FM
- 3) Novice Station CW
- 4) 80M Station CW 2 element wirebeam at 70' firing N/S
- 5) 40M Station CW 2 element wirebeam at 50' firing N/S, dipole E/W
- 6) 10/15/20M CW

We could subdivide the high band station if the interest is there by putting one station on 20M and letting another station cover 10/15M. Activity on the high bands would certainly warrant this. This would give us a total of seven stations.

Or we could decide to go laid back and spend more time socializing and flyfishing. Either way is fine with me, but we need some input in order to plan the operating positions, antennas, etc.

Also, we need input on your band preferences, if any, so you won't get stuck on a band you'd rather not operate.

I guess there is a tendency to try to do too much in too little time with regard to antennas. FD is a good learning experience in this regard. We'll make the most out of whatever Murphy sends our way. At this time, we have a need for: One 40M dipole and various antennas for 10,15,20M.

We also need to decide on our rigs for the HF stations. Randy is bringing his OHR400.

Reservations are not required to operate with the KnightLites FD group. We invite you to come on out and enjoy the fun. Bring a friend, too!

The following folks hope to participate so far:

WJ4P	Randy	Charleston,	SC
WA4NID	Dave	Durham,	NC
AE4IC	Bob	Greensboro,	NC
WF4I	Derek	Greensboro,	NC
KF4EIB	Gordon	Greensboro,	NC
W4WDN	Lyn	Willow Springs,	NC
KC4ADW	Dwayne	Fuquay-Varina,	NC
KF4URE	Monica	Fuquay-Varina,	NC
AB4PP	J.P.	Raleigh,	NC
N7RI	Ralph	Charlottesville,	VA
AA4XX	Paul	Raleigh,	NC

72 es Happy FD to all,
Paul Stroud AA4XX (919) 779-1637 aa4xx@amsat.org

Date: Sun, 14 Jun 1998 20:08:02 -0400 (EDT)
From: Mike Duke <K5xu@cris.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [13156] TEN METER AM QRP TODAY!
Message-ID: <Pine.SUN.3.96.980614200713.13421H-100000@voyager.cris.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Today, I heard N8CT calling cq on 29.000 AM. I answered him using my
ts-570 at 20 watts.

After chatting a bit, we moved to 29.025, and I cranked up my Sharp cb rig
and its 3.5 watts. We signed a half hour later.

BTW, Tom was using a Uniden 2510 with 10 watts.

If it can be done like that on AM, there's no reason for CW to not be
active up there.

I would once again like to suggest that anyone running converted cb sets
on 10 meter AM check 29.065 (channel 9) on a regular schedule. This way,
we won't get clobbered by the big rigs on 29.0 or 29.005.

72,

Mike Duke, K5XU,
President,
Mississippi Council of the Blind
<http://www.prestridge.com/mcb/>

Date: Sun, 14 Jun 1998 20:09:11 -0400 (EDT)
From: Mike Duke <K5xu@cris.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [13157] LOOKING FOR HW-202 CRYSTALS or TOUCHTONE MIC
Message-ID: <Pine.SUN.3.96.980614200813.13421I-1000000@voyager.cris.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Okay, maybe it's not really qrp, but this list is the most resourceful one I know about. Besides, if you can't help, you've already deleted me.

If you have any HW202 rocks that you would like to unload, or the matching touchtone microphone, please communicate with me.

72,

Mike Duke, K5XU,
President,
Mississippi Council of the Blind
<http://www.prestridge.com/mcb/>

Date: Sun, 14 Jun 1998 20:49:29 -0400
From: Ed <edn4pk@voyageronline.net>
To: marklori@visuallink.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [13158] Re: Field Day
Message-ID: <35846F99.2F6E5ACF@voyageronline.net>
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Mark,

Will look for you on FD. We are having FD again this year sponsored by our local group TVDXA. We keep it simple mode and band is the ops choice, not sure whose call we will use...Probably K40M...Hpe to wrk u Qrp to Qrp
Ed N4PK Qrp-1 #1307

Date: Sun, 14 Jun 1998 20:03:19 -0500
From: Wayne Alexander <walexander@wwn.net>
To: qrp-1@Lehigh.EDU
Subject: [13159] N0UR
Message-ID: <3.0.3.32.19980614200319.006ab474@pop.wwn.net>
Mime-Version: 1.0
Content-Type: text/enriched; charset="us-ascii"

Nice to talk to you Jim, You went right into my noise level. Did get your name, qth, and rst, wonder if that counts for the fox hunt?

<paraindent><param>out</param>73

</paraindent>KB0PTE

Wayne

QRP-L #1058

FISTS # 4907

<http://www.wwn.net/walexander>

E-Mail Address: walexander@wwn.net

Date: Sun, 14 Jun 1998 16:13:24 -0400
From: Thomas Isgro <kc8dgu@postoffice.worldnet.att.net>
To: adams@chuck.dallas.sgi.com

Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [13160] Re: Humour
Message-ID: <35842EE4.523D@postoffice.worldnet.att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I'm going to add my voice of support to Chuck. Although I wasn't offended (I even found the message entertaining), it was out of place on the list. I am responsible for monitoring the content on another list that is of no concern here, but I have mentioned to the members of that list on occasion, that ONLY items pertaining to the list are appropriate.

There comes a time when someone has to draw the line on subject matter and Chuck has a tough job seeing that 2500 plus members have access to the information on the list without risk of being offended.

No one really wants to become the QRP police, and I will be the last person here to be accused of being "politically correct," but it needs to be done to keep the peace.

--

73 de
KI8CZ
Tom Isgro
OHIO

<http://www.qsl.net/ki8cz>

10-X #68364	SCI #1479	QRP-L #945	ARS #203	ARCI #9606
C.A.T.T #2115	FIST 2360	NORCAL	ARRL	

Date: Sun, 14 Jun 1998 23:36:20 -0400
From: William Keith Hibbert <wb2vuo@frontiernet.net>
To: qrp-l@Lehigh.EDU
Subject: [13161] Argosy II and Voice Snthesizer is gone!

Message-ID: <199806150336.XAA92468@node21.frontiernet.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I delivered it this evening (Actually I met Rich half-way)...

Thanks for the interest in the package.

72/73, Keith, WB2VUO 100% QRP From the Great Bergen Swamp in WNY
ARRL Life Member, QRP-L #582, ScQRP #40, ARQRP #68
Trustee, NQ2RP/B 10 Mtr Milliwatting Beacon: 125 mW at 28.287 MHz
"My night light runs more power than my Rig!!!"

Date: Sun, 14 Jun 1998 23:36:21 -0400
From: William Keith Hibbert <wb2vuo@frontiernet.net>
To: qrp-l@Lehigh.EDU
Subject: [13162] Swap Ten Tec 1208 for 1209
Message-ID: <199806150336.XAA92480@node21.frontiernet.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I have a Ten Tec 6 Meter transverter, the model 1208. This is the 20 Meter to 6 Meter model. I purchased it from the estate of a local ham in a 3/4-built state, finished it and have been having a blast on 6 Meters with it, but I have just gotten a 2 Meter all-mode, and want to use that rig to drive a transverter, thus freeing up the Argonaut.

The Ten Tec model 1209 is the same package as the 1208, but it converts 2 Meters to 6 Meters, and with my new-to-me multi-mode, I will have full 6 Meter coverage and all modes including FM. What I would like to do is one of two things:

- 1 - A straight-up swap, the Model 1208 for the Model 1209, or>>>
- 2 - A straight-up swap for a NIB Model 1209, unassembled for my assembled and tested (and fully-functioning) Model 1208

Drop me a line here at the home Email account, or over at the club account at nq2rp@juno.com, or give me a ring on the twisted pair. There's a machine on line during the daytime, or you can call me at work at 716.775.1803 (Ask for Keith)

72/73, Keith, WB2VUO 100% QRP From the Great Bergen Swamp in WNY

ARRL Life Member, QRP-L #582, ScQRP #40, ARQRP #68
Trustee, NQ2RP/B 10 Mtr Milliwatting Beacon: 125 mW at 28.287 MHz
"My night light runs more power than my Rig!!!"

Date: Mon, 15 Jun 1998 00:38:37 -0500
From: aweiss@usd.edu (A. Weiss)
To: qrp-l@fidoi.cc.lehigh.edu
Subject: [13163] RE: Coax / Dipole Thread
Message-ID: <199806150538.AAA09993@sunburst.usd.edu>

Hi gang:

I caught the coax dipole vs. balanced feedlines but didn't have chance to reply.

Basically, it is a matter of trade-offs. Portable operation is a lot easier with a pre-packaged dipole/coax. Personally, I've found that it is no easier than carrying along 50ft of low-loss twinlead.

The notion that a coax-fed dipole never needs a tuner is falacious. The basics: modern rigs, including all QRP designs that I know of, use a fixed output impedance filter circuit designed for 50-Ohms. In many cases, a mismatch between rig and feedline will have minimal undesirable effects. However, our QRP rigs don't tolerate too much of a mismatch for too terribly long. But smoking the final isn't the only concern. A mismatch can invite all kinds of undesirable behavior -- parasitics, harmonics etc. Personally, I'd rather have a tuner along so the SWR can be dropped to zilch even when I'm using coax. But I have done it without a tuner as much as anyone else (or so). Cut to freq. the coax dipole ought to exhibit a reasonable SWR, especially if it is below about 0.2-wavelength because below that point ground loss acts just the same as paralleling a resistor across the antenna feed terminals. Good for keeping down the SWR to around 50-Ohms.

I always take a tuner because most of the time I end up settling for a random wire out the motel window to some tree or lightpost. I envy QRP'rs who find motels with rooms up a halfwave and trees or posts in the right place for stringing a dipole. Now, I really got excited when I dropping the xyl off at a motel near the Omaha airport -- 4th floor balcony, BIG trees across the parking lot -- man! I never got to stay in a place like that myself! But it would have been perfect for a dipole, or double-extended Zepp, or horizontal loop, or 3-wavelength Vee etc.etc. Luck of the draw.

Main thing to remember:

The basic principle of physics: put a half-wave of wire in the sky and it will

radiate equally well

regardless of feedline. The only issues are: (1) the amount of power feeding into the antenna after the trips back and forth along the feedline, and (2) effect on radiation pattern, which no one can really take seriously when operating with a simple dipole as opposed to a multi-element gain antenna. Nobody uses a dipole for its radiation pattern -- right?

Those of us who favor balanced feedlines thru an efficient tuner are trimming losses. That simple. It is sort of a purest approach (or it used to be!), but then again, it must not be too purist, because "purist" means only the most dedicated fanatics do it. The theory here: at the noise level, 0.75dB can make a difference -- square law detector phenomenon -- on being copied or not. The super-sensitive modern receivers out there trying to copy us are capable of scooping weak signals off the noise-floor. When I do an EZNEC run and see SWR = 3.7 and more (which is what you'll get with a lot of balanced feedline cases), I pull up AC6LA's ZIZL program and see what the diff between coax and balanced feedline amounts to, given RG213 (which I don't have) and low-loss TV twinlead (which I do have). Shaving that .75dB of SWR loss is good enough reason for me to use the cheap twinlead. I think most QRP DX'rs will agree with me on this one -- we NEED every bit of db that we can get wh!

en conditions aren't soo hot. Even so, I worked F00MAC in the pile-up on 30m the other night using the SST at 1.5w, split-freq (yep, swing the knob up, swing it back down etc. -- no RIT) and gawdawful RG8x with its 1.1dB/100ft at 10Mhz loss figure. Half a db gone right there because the SWR is about zilch. Why? Because I bought one of Vern Wright's modified SLVs at Dayton, then modified it a bit more, and on my way out of the fleamarket on Sunday, figured I didn't have anything to feed it with, so I plunked down my \$20 for a 50-ft hunk of RG8X so I could operate with the SLV. Actually, I'm thinking of feeding it with twinlead now that I'm back to the ranch. That might get me around +.3dB advantage. Oh well -- if you think about this stuff too much, you lose sight of reality. Like those guys on the stock market tossing around 10,000 shares of this or that everyday. Now, that's something to think about. What's with us QRP'rs, thinking about 0.3dB when we should be thinking ab!

out 13000 shares of something up 12 points.... I guess it boils down t

o the QRP ideal -- knowledge and skill offset the power disadvantage. Depends on what you want out of QRP.

73, Ade

Date: Sun, 14 Jun 1998 22:48:28 -0700
From: W7LS <w7ls@blarg.net>
To: qrp-l@Lehigh.EDU
Subject: [13164] My goat ate my dipole :-(
Message-ID: <3584B5AC.1BD2@blarg.net>

MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi, gang. Well, it's a 'first' for me in antenna problems, but my pygmy goat ate my portable dipole this weekend. I kid (er, no pun intended)you not. I had it up on a 10 foot stick that was lashed to the pig pen and it kinda fell over a bit, lowering the wire within nibbling range. I found the one leg that was down in the pasture, in 5 pieces. No word as yet on the resonant frequency of the goat or the feed point (mouth?) impedance.

This is not a joke.

Wish it was. That wire was the aircraft stuff that is a bear to work with to get connectors on. And I thought I'd seen it all.....

Jim W7LS

Date: Mon, 15 Jun 1998 00:46:49 -0600
From: "Steve Hurst" <shurst@magiclink.com>
To: <w7ls@blarg.net>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [13165] Re: My goat ate my dipole :-(
Message-ID: <199806150645.CAA37132@nss4.cc.Lehigh.EDU>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Jim ,

That'll teach you to have goats !! They will eat anything they can get their little lips around !!! My "neighbors" (several arcres away) have about 15 of them buggers, one day they decided that our yard looked like the "All you can eat " buffet !!! I woke up to goats every where. Luc(kill)y, I didn't think about the shotgun at the time and I don't care much for goat meat , or I'd be one happy (fat) ham !!!!!!! :-). They ate some of our rose bushes and started on our fruit trees, until I sent my killer "Chee Wa Wa" dog "Spike" after um !!!!! He took out after um like a bat outta..... well you know.. Anyway have had to call the Sheriff on THEM about their goats as they've come back !! Didn't think about them eating my antenna's , them's shooten words pardner !!! :-)

I gotta get that barbed wire fence up !!!!!!!!! HEY , how'd a 5000 foot

barbed wire fence work as an antenna ??? Bet I could load that baby up
!!!!!! Fox season is coming up ya know !!!!!!!!!!! Or I could sick "Spike"
on that crafty ol' Fox...

..... 73..... you Zombies.....

P.S. I'm sure that you keep your goat (s) pinned up , and don't allow them
to roam the high desert country like my neighbors !!!!!!!!!!! :-)

This is a funny post find the humor in it !!

73,
Steve Hurst
KA7NOC (southern Idaho)
<http://www.magiclink.com/web/shurst>
shurst@magiclink.com

" I'm cooler than you are. Why don't you fix your little problem and light
this candle ?"
Alan B. Shepard

Date: Mon, 15 Jun 1998 09:23:05 +0200
From: Charlos Potma <Charlos.Potma@rivm.nl>
To: qrp-1@Lehigh.EDU
Subject: [13166] Re: AD9850 DDS Problems
Message-ID: <C1256624.0027E6A2.00@notesmta.rivm.nl>
Mime-Version: 1.0
Content-type: text/plain; charset=us-ascii

I am also working on a DDS based on a AD9850.
I have tested the chip (supplied by Leon Heller
soldered on a small adapter PCB) with a
simple Visual Basic program. I have tested this
program only in a Windows 3.11 environment.
Take a look at:

<http://www.geocities.com/CapeCanaveral/Lab/9595/>

I am now working on a PIC program to control the AD9850,
but that is going slow as I want to use the 16C84,

and I am rapidly running out of I/O and memory...

greetings,
Charlos Potma, PA3CKR
charlos.potma@rivm.nl

Date: Mon, 15 Jun 1998 05:04:13 EDT
From: aa5yx@juno.com (John Harper)
To: qrp-1@Lehigh.EDU
Subject: [13167] Appalachian Trail and 7.04 MegaCycles
Message-ID: <19980615.050315.5495.0.AA5YX@juno.com>

Howdy,

I'll be hiking a 30 mile section of the Appalachian Trail in NJ from June 17-19 and will be on 40m from wherever I make camp on Wednesday and Thursday afternoon (say around 4:00PM eastern) and evening.

Rig: Norcal 40A, inverted V, 8-AA cell battery pack, Whiterook keyer (no Mike NA1XX, I won't be packing my bug this time!).

Give me a holler if you hear me!

John Harper AA5YX/2
HW-9, Norcal 40A, OHR-100A/20m, SST-30
YashicaMat 124G Info Page: <http://home.att.net/~j..harper>

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 15 Jun 1998 05:42:21 -0400
From: Richard Powell <ripowell@mpna.com>
To: qrp-1@Lehigh.EDU
Subject: [13168] FS Rohn Tower parts
Message-ID: <1.5.4.32.19980615094221.006f33fc@smtp.mpna.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

For sale: one 10' section Rohn 25G
one FR 25G (flat roof mount)

These are parts left over from an installation by the Queen City Emergency
Net club here in Cincinnati. please contact kc7tn@compuserve.com for details.

thanks.

Love this List!!!!

rick

wb6jbm

-

Richard Powell WB6JBM TENTEN - 13044
Networking Engineer, Belcan Information Technology
MCSE, CNA.
ripowell@mpna.com <http://www.mpna.com/ripowell>

Date: Mon, 15 Jun 1998 06:20:46 EDT
From: k7sz@juno.com (Rick Arland)
To: qrp@qth.net, qrp-1@Lehigh.EDU
Subject: [13169] T-T Filters for Argosy-II
Message-ID: <19980616.103319.6799.0.k7sz@juno.com>

Gang:

I need the model 220 filter (2.4 kc 8-pole) for an Argosy-II 525-D. AND
I'd like to get the 500 hz CW filter (not sure the number...218 or 218
possibly).

Anyone have these that they would like to part with?

Private e-mail please.

73 rich K7SZ

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 15 Jun 1998 07:26:26 -0400

From: Peter_Simpson@ne.3com.com
To: qrp-l@Lehigh.EDU
Subject: [13170] Fishin'
Message-ID: <85256624.003E1CEB.00@usboxmta.ne.3com.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII

Not QRP, but may be of [snicker] interest to all of you who own SLVs and "Sooper Shooters". [someone should investigate the overlap of fishing technology and amateur radio].

My wife and I were watching TV this weekend, and as we were tuning through the Nashville Network, we happened across an ad for a handheld video game. No, not the usual "blast the aliens" type...this was a hand held "Bass Fishin'" game!!!

Being "plugged" by a well known [to some, I guess] fisherman, wh was demonstrating how you have to "cast", feel the "bite", "set the hook", then "reel 'em in". Now, imagine a grown man doing this while holding a small plastic toy with a little crank on the side, cranking furiously all the time!

Oh, well. We both looked at each other incredulously. Who ever would have thought of a fishing Gameboy? For sunny days? So you can fish at work? Maybe you can use it while you're watching one of those fishing videos ("I just can't understand it, Vern, they usually jump out of the water to take the hook here").

72,
Peter, KA1AXY
[already hooked and being reeled in by EleCraft]

Date: Mon, 15 Jun 1998 08:38:58 -0400
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>
To: //QRP-L Discussion Group <QRP-L@Lehigh.EDU>, "+Doc W.D. Lindsey/K0EVZ" <70511.3041@compuserve.com>
Subject: [13171] FS: New Timewave 599ZX
Message-ID: <199806150840_MC2-4032-97FE@compuserve.com>
MIME-Version: 1.0

Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

Dear Gang:

Have For Sale my Timewave 599ZX. Only used about 2 hours. Why sell?--just after purchase I traded for an Omni VI with built-in DSP. Now the Timewave needs a new home.

Purchased the unit at Radio City in Minneapolis, MN. Original purchase price \$380.00. Will sacrifice for \$297.00 which includes shipping to CONUS.

Makes a *huge* difference in DXing and FOXhunting. Really cuts down QRM and QRN. Can work with any HF rig. Interested?--just let me know. Thanks, everyone.

72/73,

--Doc Lindsey/K0EVZ Rochester, MN--Home of the Mayo Clinic.
MWBC
519-16th Street SE
Rochester, MN 55904
507/289-5108 (eves)

Date: Mon, 15 Jun 1998 08:26:00 +0500 (GMT-5)
From: Jim Osburn <wd9eyb@butler.indiana.net>
To: KB9RPD@aol.com (KB9RPD), hartzler@abcs.com (AA9SP), k9ere@hotmail.com (K9ERE),
WTHI99C@prodigy.com (WB9KIX), mwattcpa@earthlink.net (KM7W),
carpentt@citrine.indstate.edu (N9YSQ), n9ta@bluemarble.net (N9TA),
n9dd@aol.com (N9DD), allandavis@mindspring.com (AC4HI)
Cc: qrp-1@Lehigh.EDU (QRP List), wvara@butler.indiana.net (WVARA)
Subject: [13172] Indiana QRP Club
Message-ID: <199806150326.IAA08018@butler.indiana.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit

Interest in an Indiana QRP Club seems to be building. I've heard from 9 hams that are interested. They're from all over so I think we can drop the word "Central" from the name. Where is Floyds Knobs anyway?

I think we're going to have a table at the Indianapolis Hamfest on July 11th. Ted, KB9RPD, is working on reserving a table.

I think we'll need some volunteers to man it. Send me email if you can help. Bring your QRP rig to show off.

I would like to print up some handouts for the table. What should I say in the handout? How many should I get printed?

I would like to go to a pizza place or similar establishment after the fest to talk even more QRP. I've had one guy suggest Shapiro's in downtown Indy for that. Shapiro's is a deli that sells really good food but I'm not sure it's the best place for a gathering. What do you think? Does anyone know a better place to go?

73,

Jim, WD9EYB
wd9eyb@qrp.com

Date: Mon, 15 Jun 1998 06:33:29 -0700
From: David Shalita <af389@lafn.org>
To: unlisted-recipients;; (no To-header on input)
Cc: w6wtu@juno.com, "Ham-Homebrew@ucsd.edu" <Ham-Homebrew@ucsd.edu>, "qrp-1@Lehigh.EDU" <qrp-1@Lehigh.EDU>
Subject: [13173] Need schematic or service manual
Message-ID: <358522A9.358FB7B2@lafn.org>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Need a copy of the schematic
and/or service manual for the EF Johnson 900Mhz commercial radio. The
model number is 242-8640 and it was Mfr'd in 1989.

I am posting this message for a friend who cannot access newsgroups.
Please reply to: w6wtu@juno.com
in addition to normal replies to me and the net.

Thanks for any help in locating a source.

--
David Shalita (Dave)
af389@lafn.org
Van Nuys, CA

Date: Mon, 15 Jun 1998 09:49:38 -0400
From: kt3a@juno.com (Cameron C.R. Bailey)
To: w7ls@blarg.net
Cc: qrp-1@Lehigh.EDU
Subject: [13174] Re: My goat ate my dipole :-(
Message-ID: <19980615.095238.3334.3.kt3a@juno.com>

I have a black labrador that loves to chew line cords.
Somehow, he knows when they are NOT plugged in!
Experience maybe??

72, kt3a
Cameron C.R. Bailey
Mount Wolf, Pennsylvania
kt3a@juno.com

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 15 Jun 1998 10:06:13 -0400
From: Dennis Brickey <n4dd@preferred.com>
To: "'qrp-1@Lehigh.EDU'" <qrp-1@Lehigh.EDU>
Subject: [13175] WTB: TENTEC 515 ARGONAUT
Message-ID: <01BD9845.3BD19C00@ppp52.sullivan.preferred.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Looking for a Tentec 515 Argonaut at a fair price. Like some form of cw
filtering also. What do you have? e-mail n4dd@preferred.com or call
423-323-1533 Thanks and have a great day! Dennis/N4DD

Date: Mon, 15 Jun 1998 08:04:35 -0700
From: Bill Jones <kd7s@psnw.com>
To: qrp-1@Lehigh.EDU
Subject: [13176] New(?) interface at QRZ
Message-ID: <35853803.29CC02BD@psnw.com>
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Friends,

It looks like QRZ has a new interface on their "quick callsign lookup" page. There is now a place to add a personal profile and even your photograph if you wish. I wonder how we could use this feature to promote QRP. Just be sure to read the fine print before you enter any data.

You can find them at <http://www.qrz.com/>

=====
Bill Jones - KD7S <><
Sanger, California
<http://www.psnw.com/~kd7s>
=====

Date: Mon, 15 Jun 1998 11:33:36 -0400
From: "Keith M. Hamilton" <khamilton@cisnet.com>
To: <qrp-l@Lehigh.EDU>
Subject: [13177] QRP ++ and Companion For Sale
Message-ID: <002b01bd9873\$01ecd080\$7d90b3cc@khamilto.cisnet.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

QRP++ and Companion by Index Labs for sale.

Serial # 305 in MINT condition! Upgraded to ++ by the factory. Includes Companion (Ant. tuner, battery and charger in matching case.) and manuals. I also have a radio shack headphone with boom mic I will throw in.

This is a VERY nice radio!

\$ 550.00 for BOTH (firm)!

I will pay to ship it to you UPS ground after having received your Money Order or Bank Cashiers Check.

Please reply directly to my email address.

Keith M. Hamilton, W8GX
Youngstown, OH 44512

khamilton@cisnet.com

Date: Mon, 15 Jun 1998 08:53:04 -0700
From: Pierre Constantineau <pierre@cmpe.ubc.ca>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [13178] AD9850 startup problems
Message-ID: <35854360.7A908121@cmpe.ubc.ca>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi everyone,

As I promised, I keep you posted...

I added a 74ls244 buffer to my circuit. Now the frequency generation and selection works fine.
I am now running the software in dos only. did not retry in win95 dos window.

There is still however one problem!
The chip does not seem to start automatically!
It happened again yesterday. To start the output, I have to short circuit the pins 5 and 6 (or is it 4 and 5)
The short circuit was first done by mistake when I tried the chip the first time. It was done with the tip of my Oscope probe. (the pins are really small!) :-) The short lasts only for a fraction of a second.

The chip is initially not responding. It doesnt do anything...
when I do that short, it gives an output. I can then program the chip to any frequency. The frequency that it gives me is accurate and repeatable. (Thanks to the buffer)

I just hope that this problem is not a symptom of a fried chip!

BTW I do not use the onchip comparator. The pins are simply left open.
could that cause the problem?

Thanks all.

--

```

      /' ^ '\
     ( o o )
-----o000--( )--000o-----
Pierre Constantineau B.Eng      Email: pierre@cmpe.ubc.ca
M. Applied Sciences Candidate   Phone: (604) 822-2913
Flash Smelting Group           Fax:   (604) 822-4750
Centre For Metallurgical       111-2355 East Mall
Process Engineering            Vancouver, BC, Canada
U. of British Columbia .ooo0   V6T 1Z4
http://noname.cmpe.ubc.ca ( )   Oooo.  Amateur Radio: VE7JPC
-----\ (---( )-----
        \_)  ) /
          ( _/

```

Date: Mon, 15 Jun 1998 09:30:13 -0700 (MST)
From: "Mark E. Monninger" <markem@primenet.com>
To: W7LS <w7ls@blarg.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [13179] Re: My goat ate my dipole :-(
Message-ID: <Pine.BSI.3.96.980615092027.4884A-100000@usr04.primenet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hey Jim...

You're not the only one. I had an 80M loop up at my place a couple years ago. It was in kind of a pentagon due to the tree layout. At one point it rubbed on some tree branches and would eventually wear thru and fall down into our goat/horse/duck/etc. pasture. It would always be 10 ft or so short when I went to put it back together...couldn't figger it out. Then I caught one of the goats munching on a piece of wire. They were actually eating part of it. It was some surplus teflon-insulated, silver plated 12 ga. wire. Didn't seem to bother the goats. They are strange creatures. Sometimes I think they really do eat tin cans.

The loop was a great antenna. I fed it with twinlead and a tuner. Only reason I don't still have it (aside from the goats) is that a big storm took out a couple of my trees...one fell right into the swimming pool.

73... Mark AA7TA

On Sun, 14 Jun 1998, W7LS wrote:

> Hi, gang. Well, it's a 'first' for me in antenna problems, but my
> pygmy goat ate my portable dipole this weekend. ...

Date: Mon, 15 Jun 1998 11:42:46 -0500
From: Tellefsen Bob-CNSE97 <cnse97@lmpsil02.comm.mot.com>
To: Adams Chuck <adams@chuck.dallas.sgi.com>
Cc: QRP-L list <QRP-L@Lehigh.EDU>
Subject: [13180] Re: Elmer 200 Series
Message-ID: <E726B6D1F2C7D1119AB900805FA74B3C60EB6D@s-il02-n.comm.mot.com>
MIME-Version: 1.0
Content-Type: text/plain

Chuck:

You missed one.

Many years ago, Larson E. Rapp published the details of the Harpitts oscillator in QST.
He claimed it had the best features of the Hartley and Colpitts oscillators.
Now here's an oscillator "for the rest of us" :-)

73, Bob N6WG

Date: Mon, 15 Jun 1998 12:45:51 -0700
From: ka1iic <ka1iic@ime.net>
To: shurst@magiclink.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [13181] Re: My goat ate my dipole :-(
Message-ID: <358579EF.7FB@ime.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi guys,

I you set up your 5000 feet correctly you'll have an excellent

'beverage' antenna. But with Murphy's law being the way it is the thing would be in all the wrong directions.

Oh well...

73
Vince
ka1iic
-.-.

Date: Mon, 15 Jun 1998 12:58:40 -0400
From: Michael Maiorana <mikemo@ibm.net>
To: bmug@gwl.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [13182] Re: Elmer 101
Message-ID: <358552C0.5E45@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Brad Mugleston wrote:

>
> I mentioned that I'd gotten my 30M done but was getting 30Volts on the
> power out and was wondering if that was reasonable or should I cut it down
> to 12V as listed in the instruction manual?

I must have missed your first post (duh!).
Anyway, if you are measuring 30 volts peak to peak on the output across
a 50 ohm dummy load.....

30 volts p-p = 15 volts peak = 10.6 volts RMS
 $P(\text{watts}) = E^2/R = (10.6)^2/50 = 2.25 \text{ watts}$

Sounds right to me.

Did you make any contacts yet?

--
72 de ku4qo
Mike Maiorana
Palm Harbor, FL

"Have a great day, and enjoy whatever liberty you have remaining!"

Date: Mon, 15 Jun 1998 10:05:54 -0700
From: Dan Baldwin <baldwin@primenet.com>
To: qrp-l@Lehigh.EDU
Subject: [13183] FS: MFJ-969 Tuner
Message-ID: <3.0.5.32.19980615100554.00806100@mailhost.primenet.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

For sale MFJ-969 Deluxe Versa Tuner II in mint condition only three months old with MFJ-1312 Power adapter, manual and original carton \$100 plus shipping. - Dan 73, KK7JZ

Date: Mon, 15 Jun 1998 12:54 -0700 (PDT)
From: eakwik@mail.hac.com
To: qrp-l@Lehigh.EDU
Subject: [13184] thanks qrp-l another upgrade
Message-ID: <0EUL00G05RCF7Z@mail.hac.com>
MIME-version: 1.0
Content-type: TEXT/PLAIN; CHARSET=ISO-8859-1

What a weekend for this ham. I got my Fathers Day gift on Friday night because the my wife and kids left for a visit to California and will not be back until after the real Fathers Day. The hints paid off and a got a new key, a Hi Mound HK-708. Had to try it out right away. I hear a qrpwr working a DL9. When they finish the DL9 calls CQ. I throw my call in and he comes back. Best DX for me yet in my four months on the air.

Get up at 4:30 am Saturday and drop the wife and kids off at the airport. Drive from the airport to the ARRL VE test. I passed my advance test. I take the extra and miss by only one.

This list has provided me with motivation and support for the last year. Without it I do not think I would have gotten this far. A couple of months of study and the extra will be in the bag (already passed the 20 wpm). Thank you. Thank you. Thank you. Thank you. Thank you. Thank you.

Question. My e-mail address will be changing. How do I get the new address to the listserver? If I unsubscribe using my old address and then subscribe with my new address will my qrp-l

number say with me?

Thanks again.

Ed Kwik KC8JIE/AA Waterford, MI qrp-l# 1444

Date: Mon, 15 Jun 1998 11:26:43 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: Low Power Group <qrp-l@Lehigh.EDU>
Subject: [13185] Double Bazooka
Message-ID: <Pine.SOL.3.91.980615112516.24662A-1000000@gpfn1.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Can anyone offer a comparison between the Double Bazooka antenna for 40 mtrs
and a Delta Loop for 40 mtrs?...tnx & 72 - Bruce(VE5RC)

Date: Mon, 15 Jun 98 07:24:30 HST
From: mike@krypton.nmr.Hawaii.Edu (Mike W. Burger)
To: qrp-l@Lehigh.EDU
Subject: [13186] TV ads, braising aluminum
Message-ID: <9806151724.AA16204@krypton.nmr.Hawaii.Edu>

After two years of waiting for the return of the right infomercial,
I finally caught it this weekend. It was a 30 minute ad for a
type of rod that is used with a propane torch to essentially
braise aluminum at low temperature. The video made it look
amazing, finally something that joins aluminum like silver
soldering or brass braising of other metals. I ordered a pound
and a half of the rods for \$45. Anyone tried using this stuff
for antenna construction or joining aluminum seams?

AH7R - Mike Burger, University of Hawaii at Manoa, Dept. of Chemistry
HI-QRP #28 - QRP-L #1053 - FISTS #3225 - BL11ch - Honolulu County

PS it is called Alumiloy and must be a rather fancy alloy to work
as well as all the demonstrations indicate.

Date: Mon, 15 Jun 1998 14:12:35 -0400
From: Bill Howell <bhowell@mail.utexas.edu>
To: qrp-l@Lehigh.EDU
Cc: rmerriam@csi.com
Subject: [13187] Re: Online Grid Maps
Message-ID: <199806151812.0AA53482@nss4.cc.Lehigh.EDU>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Rud Merriam KD5DTV Wrote:

Anyone know where I can find a grid map on the web?

////////////////////////////////////

Grid maps are at: <http://VHFGrouper.greeceny.com/page10.html>

They are zipped .BMP files. You'll have to download 'em
to view 'em.

I can view them in Windows 95 "Paint". An earlier version
of Paint, in Win 3.1 would not display them.

Bill Howell
University of Texas at Austin
College of Fine Arts
Electronic Maintenance
N5ALO QRP-L #415

Date: Mon, 15 Jun 1998 13:30:58 -0500
From: "Kelly Ellison" <kelman@dialnet.net>
To: <qrp-l@Lehigh.EDU>
Subject: [13188] 80 meter S&S TAC-1 For Trade
Message-ID: <199806151831.NAA26778@mail.dialnet.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1

Content-Transfer-Encoding: 7bit

Ladies and Gentleman...

I have a S&S TAC-1 for 80 meters. This is the radio with the knob tune not the push buttons. It has a built in filter and is an excellent CW rig. Just got it back from S&S after factory alignment and upgrade. Will consider all trades. Unbuilt rigs, antennas, whatever. If you want this rig let me know. It is not being used here. Was hoping to trade it for 40 meter TAC-1 and it didn't pan out. Please contact me direct at kelman@dialnet.net .

Thank you all.

Kelly Ellison
WB0WQS
Aurora Missouri
QRP-L #702

Date: Mon, 15 Jun 1998 13:42:35 +0000
From: "Bryan Turner" <turnerw@email.uah.edu>
To: qrp-l@Lehigh.EDU
Subject: [13189] Battery Free QRP?!?!
Message-ID: <9806151842.AA03977@uahis1.uah.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7BIT

I'd like to take credit for this idea, but I read it in a Crystal Set Society (<http://www.midnightscience.com/>) book.

For a few years there has been discussion of buiding battery free amplified crystal radios. Essentially this involves building a crystal set with a small transistor or I.C. amplifier to drive a small speaker. The difference comes in the power supply used to power the amplifier. Insted of using a battery to operate the amplifier, a second crystal receiver is built to serve as a power supply for the amplifier. The second receiver is tuned to the strongest signal in the area for the greatest power; since the second receiver is only used as a power supply, selectivity is not a concern - it's there just to grab

as much power as possible.

Now here's the neat part: What if a crystal radio is used as the power supply for a QRPp transceiver? I certain the Knight Lights members will try this out soon with their Smite kits.

Again, I wish I could take credit for this idea, but it's not mine. I believe the book was "Crystal Set Building" (<http://www.midnightscience.com/catalog2.html>). I highly recommend the society's books. They are all loaded with information. The same idea of doing more with less that attracts me to QRP also attracts me to crystal sets.

73 Bryan W8LN

Date: Mon, 15 Jun 1998 13:55:40 -0500
From: John Burnley <JBurnley@ifmc.org>
To: qrp-1@Lehigh.EDU
Cc: burnley-ia@worldnet.att.net
Subject: [13190] Next Iowa QRP meeting 6/20/98
Message-ID: <s5852801.086@ifmc.org>
Mime-Version: 1.0
Content-Type: text/plain
Content-Disposition: inline

Just a reminder that the next meeting of the Iowa QRP club will be held this Saturday, June 20, 1998 at 3:00 PM in the Urbandale Public Library (Urbandale, Iowa). For those of you from outside the Des Moines area, here are directions to the library.

Traveling west on I-80:

Take the Merle Hay Road exit (exit 131) from I-80/I-35 (I-80 and I-35 merge on the east side of Des Moines). Turn left on Merle Hay Road (heading south). Pass through the light for the east-bound entry to I-80/I-35. Continue heading south on Merle Hay road past the next light (Meredith Drive; you will see a Perkins on the left and Quik-Trip on the right). Continue heading south to the next light (Aurora; Phillips 66 on the left, Bob Brown Chevrolet on right). Turn right onto Aurora (heading west). Head west through the light at 64th street. Continue heading west and come to the four way stop at 70th. Continue heading west

(straight through the four way stop) through another light. Continue heading west to 73rd Street. The library will be on the right (north) side of the road just past the Urbandale High School. BTW, if you miss the Merle Hay Road exit you can take the next exit and follow the 'traveling east' directions.

Traveling east on I-80:

Take the 86th Street exit (exit 129). Turn right onto 86th Street (heading south). Continue heading south through the first light (Meredith Road). Continue heading south to the next light (Aurora). Turn left on Aurora (heading east). Continue heading east on Aurora for about 12 blocks to 73rd Street. The library will be on the left side of Aurora.

Hope to CU at the meeting. If you need any more directions, let me know.

72/73,

John NU0V
Urbandale, IA

!

!

Date: Mon, 15 Jun 1998 12:09:47 -0700
From: W7LS <w7ls@blarg.net>
To: turnerw@email.uah.edu
Cc: qrp-l@Lehigh.EDU
Subject: [13191] Re: Battery Free QRP?!?!
Message-ID: <3585717B.5D5D@blarg.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi, Bryan. I saw an article on 73 a few years back showing a guy using a lemon with a couple of nails to make a battery to run a 10 mW transmitter. Does this qualify?

Jim W7LS

Bryan Turner wrote:

>
> I'd like to take credit for this idea, but I read it in a Crystal Set
> Society (<http://www.midnightscience.com/>) book.
>
> For a few years there has been discussion of buiding battery free
> amplified crystal radios. Essentially this involves building a crystal
> set with a small transistor or I.C. amplifier to drive a small
> speaker. The difference comes in the power supply used to power the
> amplifier. Insted of using a battery to operate the amplifier, a
> second crystal receiver is built to serve as a power supply for the
> amplifier. The second receiver is tuned to the strongest signal in the
> area for the greatest power; since the second receiver is only used as
> a power supply, selectivity is not a concern - it's there just to grab
> as much power as possible.
>
> Now here's the neat part: What if a crystal radio is used as the power
> supply for a QRPp transceiver? I certain the Knight Lights members
> will try this out soon with their Smite kits.
>
> Again, I wish I could take credit for this idea, but it's not mine. I
> believe the book was "Crystal Set Building"
> (<http://www.midnightscience.com/catalog2.html>). I highly recommend the
> society's books. They are all loaded with information. The same idea
> of doing more with less that attracts me to QRP also attracts me to
> crystal sets.
>
> 73 Bryan W8LN

Date: Mon, 15 Jun 1998 13:13:05 -0600
From: wa5whn@juno.com
To: qrp-l@Lehigh.EDU
Cc: w5bi@flash.net, ab5vc@juno.com, djf@swcp.com, johnmb@mindspring.com
Subject: [13192] Star Party "W5P" SES reminder this coming weekend
Message-ID: <19980615.131313.2678.0.wa5whn@juno.com>

Dates of operation for the NM Star Party Special Event Station: June 20 &
21, 1998 {Sat. & Sun}

Special Event Station callsign: W5P

NM Star Party
Rio Rancho, NM
grid square: DM65

Times: 1600 - 2400 UTC {Sat. & Sun.}

modes: cw, ssb, rtty, fm
bands: 2 - 40 meters {QRO & QRP} & via the satellites
Novice/Tech/General portions of the bands.

Celebration of the NM Star Party on June 25, 1998 in Rio Rancho, NM,
which will be open to the public. Map to the Star Party location is
listed in the following url along with some photos;

<http://www.taas.org/~taas/taasf.html>

The Star Party location is latitude 35 degrees 16.678 minutes north,
longitude 106 degrees 40.979 minutes west for those who want use the
resources of the internet to draw their own maps.

QSL & SASE #10 envelope to
W5P
Jay Miller, WA5WHN
P.O. Box 6552
Albuquerque, NM 87197-6552
USA

email wa5whn@rt66.com for more info about this special event station, or
view the following URL;

<http://www.swcp.com/~n5zgt/w5p/>

Check this URL regularly for updates.

Remember, the Star Party takes place on June 25th. The Special Event
Station is in operation on June 20 & 21, 1600 - 2400 UTC. This the
weekend prior to the ARRL Field Day.

Albuquerque, NM USA

72...Jay, WA5WHN DM65qd

Date: Mon, 15 Jun 1998 15:25:50 -0400
From: Michael Maiorana <mikemo@ibm.net>
To: qrp1 <qrp-1@Lehigh.EDU>
Subject: [13193] Dans Centennial XCVR comments?
Message-ID: <3585753E.6872@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I'm thinking of getting a 40 meter centennial kit from Dans. Does anyone who has built one have any comments, good or bad?

Thanks!

--

72 de ku4qo
Mike Maiorana
Palm Harbor, FL

"Have a great day, and enjoy whatever liberty you have remaining!"

Date: Mon, 15 Jun 1998 13:17:27 -0700
From: Jerry Parker <jparker@fix.net>
To: qrp-1@Lehigh.EDU
Subject: [13194] QRP without Batteries
Message-ID: <2.2.32.19980615201727.00be56c8@fix.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Several years ago I used a solar panel to

power my cw tranceiver(qrp) on 15 to get the

natural power credit for field day.

It looks like this may now be a reasonable alternative

for backpackers considering the light weight panels

available today.

72,,,Jerry...WA6OWR...K

Date: Mon, 15 Jun 1998 13:40:39 -0700 (PDT)
From: KC5TJA <kc5tja@topaz.axisinternet.com>
To: qrp-l@Lehigh.EDU
Subject: [13195] Re: Battery Free QRP?!?!
Message-ID: <Pine.LNX.3.96.980615133841.12728A-1000000@topaz.axisinternet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 15 Jun 1998, W7LS wrote:

> Hi, Bryan. I saw an article on 73 a few years back showing a guy using a
> lemon with a couple of nails to make a battery to run a 10 mW
> transmitter. Does this qualify?

Heheh...it's still a battery... :-)

I was once pondering the creation of a digital circuit once that got its power through inductive coupling with 60Hz power lines. I figured, wherever you go, there's a ton of 60Hz radiation floating about. So, why not wrap the device in a loop (or, make the loop separate, but that's immaterial for my purposes), and feed that loop into a transformer and bridge rectifier? Sure, it doesn't provide a lot of current (unless you transform it down, but it's still nowhere near as much as an actual outlet connection), but it might be just enough... :-)

=====

KC5TJA/6		- TEAM DOLPHIN -
DM13		Samuel A. Falvo II
QRP-L #1447		http://www.dolphin.openprojects.net

Date: Mon, 15 Jun 1998 20:46:53 +0000
From: Ed Loranger <we6w@qsl.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [13196] 160 Meter Skeds.
Message-ID: <3585883D.4DAF@qsl.net>

Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I'm already tired, but I've been working two shifts while testing my 160 Meter setup.

Nightly at 0400Z and every morning at 1300Z. 15 minutes of calling each time. This is tiring but I have come close to a sked with Robert/KD6CC. He answered, then the band collapsed.

I am sure that 160 M. Band characteristics are well known by the veterans. It is kind of fun exercising the band from an operator's point of view -- the books say a lot but it really sticks to memory when you live it.

So I'm living it. It has been tough /QRP that is for sure. But having KD6CC come back was great. Unfortunately the band was not favorable and I never got my RST. But Robert is on QRZ and about 800 Miles south -- not bad for my experimental QRP antenna and 5 watts. At 5 watts the NE-2 wrapped around the high voltage wire on the loop just barely glows. Tune for maximum glow and minimum plate current.

One amazing observance I have: The band was sounding crummy for the last hour on Friday Night around 0530 PM, then all of a sudden I heard serious activity on 1812, just 2 kc's above the 1810 qrp freq. Lasted maybe 5 minutes. I wonder if this is normal for this band --- Signals everywhere nice and clean.

Anyway, I'm running 2 freqs, 1808 in the AM at 1300Z; 1810 KHz evenings at 0400Z. 15 minutes calling guaranteed.

We'll keep the b/W down via email. No need to answer. Just put the rigs on the air and see if you find me or I find you. I like the idea of a chance meeting.

CW only. 72 to be hrd on top band soon from Northern Calif.

..
-Ed
--

72, =ED, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

Date: Mon, 15 Jun 1998 13:52:07 -0700 (PDT)
From: "Allan G. Taylor" <ataylor@heracles.llnl.gov>
To: qrp-1@Lehigh.EDU
Subject: [13197] FS: NIR-12 DSP unit
Message-ID: <199806152052.NAA20938@heracles.llnl.gov>

I have a JPS NIR-12 DSP unit that I am willing to ship for \$235. I may consider a juicy trade ...

Allan K7GT k7gt@qsl.net

Date: Mon, 15 Jun 1998 15:54:59 -0500
From: "Kevin Muenzler WB5RUE" <wb5rue@stic.net>
To: "'Low Power Amateur Radio Discussion'" <qrp-1@Lehigh.EDU>
Subject: [13198] RE: QRP without Batteries
Message-ID: <19980615205502236.AAA44@muenzlerk>

I remember several years ago some ham friends and I had a contest to come up with the strangest form of power. We had all kinds of strange power sources such as rat-power with a rat running inside a wheel. It wasn't too consistent. I entered with my "tator power" battery. It consisted of several red potato batteries running in series to produce about 10 volts. The electrodes were silver and copper. I tried other foods like lemons and oranges but they tended to eat up the electrodes, were too expensive to waist and didn't give too much current. I was able to get about 15ma from my tator battery. It was enough to make a 40m qso about a mile away.

Kevin, WB5RUE
wb5rue@stic.net
<http://www.qsl.net/wb5rue>

Date: Mon, 15 Jun 1998 16:54:33 -0400
From: Thomas Jennings <jennings@eng14.rochny.uspra.abb.com>
To: turnerw@email.uah.edu
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [13199] Re: Battery Free QRP?!?!
Message-ID: <35858A09.7ED5240F@eng14.rochny.uspra.abb.com>
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Guys,

Why not use the energy from a crystal detector to charge up a huge capacitor? That way you can get a couple of hundred mw out of the transmitter. The capacitor would be charging as long as a singal is received.

73,

Tom, kv2x

Bryan Turner wrote:

>
> I'd like to take credit for this idea, but I read it in a Crystal Set
> Society (<http://www.midnightscience.com/>) book.
>
> For a few years there has been discussion of buiding battery free
> amplified crystal radios.
.
.
.
.
> 73 Bryan W8LN

Date: Mon, 15 Jun 1998 22:30:36 +0100 (BST)
From: John Fletcher <johnf@innotts.co.uk>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [13200] Help identifying power MOSFETs
Message-ID: <199806152130.WAA10346@carlton.innotts.co.uk>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi All,

Yesterday at a hamfest I bought an old Hewlett Packard hard disk drive for 50 pence - about 75 cents - to dismantle it for parts. It contained four N-channel and four P-channel power MOSFETs which I think drove the stepper motor. They're in the same sort of package as the IRFD family of devices which I know can be used in HF PA stages, looking like a four-pin dual-in-line chip with two of the pins, the drain connection, joined together. Can anyone help me to identify these devices from their HP reference code, please?

The markings are (where IvR is the International Rectifier trade mark):

N channel:	1855	P channel:	1855
	G5 IvR F3		H2 IvR F2
	0520		0567

Thanks in advance,

72 de John G4EDX

Date: Mon, 15 Jun 1998 22:58:26 +0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: qrp-1@Lehigh.EDU, gqrp-1@blacksheep.org
Subject: [13201] International QRP Day Contest
Message-ID: <E0ylhHl-0002s6-00@hen.scotland.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

RULES

On 17th June (International QRP Day), work as many stations as you can using QRP (5 watts CW, 10 watts PEP), any band. Each QSO is 1 point (for all QSOs, with QRP or QRO). You can only operate for 2 hours, one 2 hour period or 2 x 1 hour. Send me your final score, not log. The first three win certificates from me.

I hope that is clear.

--73--

Frank G3YCC G QRP 042
email: g3ycc@g3ycc.prestel.co.uk
QRP web Site: <http://www.homeusers.prestel.co.uk/g3ycc/>
Packet: G3YCC@GB7HUL

Date: Mon, 15 Jun 1998 22:58:26 +0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: qrp-1@Lehigh.EDU, gqrp-1@blacksheep.org
Subject: [13202] Fine example of homebrew
Message-ID: <E0ylhHh-0002s6-00@hen.scotland.net>
MIME-Version: 1.0

Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

See John G4EDX's fine example of a homebrew 'Norcal 40' on my web page (picture taken at Elvaston Castle rally on Sunday):

<http://www.homeusers.prestel.co.uk/g3ycc/g4edx.html>
--73--

Frank G3YCC G QRP 042
email: g3ycc@g3ycc.prestel.co.uk
QRP web Site: <http://www.homeusers.prestel.co.uk/g3ycc/>
Packet: G3YCC@GB7HUL

Date: Mon, 15 Jun 1998 18:02:43 EDT
From: k7sz@juno.com (Rick Arland)
To: qrp@qth.net, qrp-1@Lehigh.EDU
Subject: [13203] RIT on the Argosy-II (525D)
Message-ID: <19980616.221541.10503.0.k7sz@juno.com>

Has anyone tried extending the range of the RIT (offset tuning) on the T-T Argosy-II (model 525D)? If so, was the operation a success and what parts were substituted?

73 rich K7SZ

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 15 Jun 1998 18:04:50 -0400 (EDT)
From: "J. Skalski" <jskalski@acsu.buffalo.edu>
To: qrp-1@Lehigh.EDU
Subject: [13204] JPS ANC4 fs
Message-ID: <Pine.GS0.3.96.980615180257.17139A-1000000@xena.acsu.buffalo.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I have one with wall wart ps. looks like new.
this is the noise cancelling unit BTW.

\$100

73,

Jim N2GO
The Buffalo QRP CONNECTION
ARCI #9013 QRP-L #381
Life member ARRL
jskalski@acsu.Buffalo.EDU

Date: Mon, 15 Jun 98 18:25:42 EDT
From: "L. Mark Pilant - MS ZK03-4/Y02 DTN 264-1529" <pilant@seesaw.ENET.dec.com>
To: qrp-l@Lehigh.EDU
Cc: pilant@seesaw.ENET.dec.com, johnf@innotts.co.uk, pilant@seesaw.ENET.dec.com
Subject: [13205] RE: Help identifying power MOSFETs
Message-ID: <9806152223.AA12154@us2rmc.zko.dec.com>

John, from my cross reference:

1855-0520 Intl Rect IRFD113
1855-0567 Intl Rect IRFD9123

I hope this helps.

73/72

- Mark N1VQW

Date: Mon, 15 Jun 1998 18:35:40 EDT
From: ARDUJENSKI@aol.com
To: qrp-l@Lehigh.EDU
Subject: [13206] Have you been there?? Super site!!
Message-ID: <24fa54f.3585a1bd@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

How about a neat field HALF WAVE ANTENNA?
A single coil Z-MATCH tuner?

A LOOP antenna 33inches on a side for 20-15-10M?
How about an apartment or portable HF antenna?
Go to <http://www.homeusers.prestel.co.uk/g3ycc/ants.htm>

Alan KB7MBI

Date: 15 Jun 1998 18:49:06 -0400
From: Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
To: qrp-l;;
Subject: [13207] Elmer101:(long) discussion of Q5,T4
Message-ID: <1998Jun15.184906-0400@[130.113.234.7]>

Paul (AA1MI) and I had a recent private discussion of the
SW40+ circuitry involving Q5, and its collector load thru
T4, the ferrite 8:1 transformer. We both agree that it may
be useful to others....(its l-o-n-g)
Glen VE3DNL

[[start of log]]

Original posting from Paul (AA1MI) to QRP-L:

Hi gang,

I've been looking over and playing with the latest installment (RF
buffer/driver) and have a few questions for our online sages...

1. The design consists of a 3-transistor output stage (Q4, Q5 and Q6). Why is it necessary to have three stages? Wouldn't just two suffice -- one to buffer the mixer output/filter, in turn driving the PA transistor (here, Q6)?
2. I think I understand the purpose of T4 (improving gain on a Class A amp?), but I sure would appreciate it if somebody could walk me through the process of determining how many turns on what kind of core are needed -- and *why*.

Thanks
Paul, AA1MI

Response from Glen (VE3DNL)

>1. The design consists of a 3-transistor output stage (Q4, Q5 and Q6). Why is
>it necessary to have three stages? Wouldn't just two suffice -- one to buffer
>the mixer output/filter, in turn driving the PA transistor (here, Q6)?

>

Good question. Dave has designed the RF amp stages very conservatively. Good approach. Consider that these transistors are CHEAP!!! like about ten cents each. If adding one extra makes your design more stable or re-produceable then its money well spent. You COULD do it with two, but you'd have to push 'em to the limit.

>2. I think I understand the purpose of T4 (improving gain on a Class A amp?),
>but I sure would appreciate it if somebody could walk me through the process
>of determining how many turns on what kind of core are needed -- and *why*.
>

I went thru the design of this stage and found that Dave pushed the collector EXACTLY right...beautiful job.
Its a class-A amp. To get max power out of it, you want the collector current to swing from its quiescent value (I recall its something like 20 - 30 ma) down close to zero ma., and up to twice quiescent.
At the same time, collector voltage should swing from +12v down close to the emitter voltage, and up to +24 v on the overshoot.
For both current and voltage swing to reach these limits simultaneously requires a specific collector load Z. That's where the turns-ratio of T4 comes in.
If quiescent $I_c = 25\text{mA}$, and collector voltage swing is 10v (some is taken up by the emitter resistors), then R_c for best efficiency is $10\text{v}/.025$ ohms, or 400 ohms.

With a turns ratio of 8:1, the impedance ratio is 64:1
This means that the base circuit must be around $400/64$ ohms (about 6 ohms).
This load is mighty non-linear and can't be measured easily.
(and remember that these numbers are from memory, and might not be exact).
To choose the turns ratio requires you to know what impedance Q6's base circuit presents to the 1-turn winding of T4.

So you've gotta choose a core that gives an inductive impedance of much greater than 6 ohms per turn².
A rule of thumb is to design for between 5 to 10 times the 6-ohm load.
So at 7MHz you want about 50 ohms minimum inductance.
That's an inductance of 1uh per turn.
Choose a core using the "AL" winding value (units of henries-per-turn-squared) sometimes they spec AL in mH/t² or nH/t². I'd expect that the FT37-43 core has an AL value exceeding 1uH/t² (more is OK, less isn't).

>From Paul to Glen:

A few follow-up questions:

Why do you say the load is highly nonlinear? And how does somebody go about estimating it in order to size T4?

>So you've gotta choose a core that gives an inductive impedance of much >greater than 6 ohms per turn.

Why? I only need 6 ohms, right, so one turn does the trick?

> A rule of thumb is to design for between 5 to 10 times the 6-ohm load.
Rule of thumb for what? I'm not sure what you're referring to here...

> So at 7MHz you want about 50 ohms minimum inductance.

> That's an inductance of 1uh per turn.

How did you arrive at that figure (1 uH/turn)?

>From Glen to Paul

>Why do you say the load is highly nonlinear? And how does somebody go about >estimating it in order to size T4?

Q5 is the last linear stage: all the active devices beyond are "ON" during part of the (7MHz) cycle, and "OFF" during other parts of the cycle. This includes D6 and Q6, D7-D10. (D12 should never conduct in normal operation).

When "ON", the base of Q6 is VERY low impedance. When "OFF" it is very high impedance. Trying to figure out the average impedance isn't easy. Same with D6.

I suppose you could say that Q5 has an input Z that varies with instantaneous input signal, but it varies only slightly. When we say that Q5 is linear, we assume that input Z and output Z DON'T vary with input signal, and its a pretty fair approximation.

We can't make the same approximation with D6 and Q6 because their input Z and output Z vary WILDLY with instantaneous input signal level.

>>So you've gotta choose a core that gives an inductive impedance of much >>greater than 6 ohms per turn.

>Why? I only need 6 ohms, right, so one turn does the trick?

>> A rule of thumb is to design for between 5 to 10 times the 6-ohm load.

>Rule of thumb for what? I'm not sure what you're referring to here...

Well, we don't want the inductive reactance of the transformer to load down Q5's collector. Q5 should be seeing mostly a resistive load,

consisting of the (transformed) impedance of Q6's base circuit. Since T4's inductive reactance is in parallel with Q5's collector, and in parallel with (transformed) load of Q6, it should be much larger than the resistive load that Q5 sees. This will assure that most of Q5's collector current goes into the load, and not into T4's inductive reactance.

This is an important thing to see. Ask more questions if you're not completely sure about what's going on here.

>

>> So at 7MHz you want about 50 ohms minimum inductance.

>> That's an inductance of 1uH per turn.

>How did you arrive at that figure (1 uH/turn)?

What inductance gives 50 ohms at 7 MHz?

It is $50/(2\pi \cdot 7e6)$. That works out to a little more than $1e-6$ henry (1uH). Since T4's secondary winding is 1 turn, then AL is $1\mu\text{H}/\text{turn}^2$

>From Paul to Glen:

First, I noticed that many example circuits use a tuned tank at the output, putting a cap across the transformer. Why not here?

You say, "since T4's inductive reactance is in parallel with Q5's collector..."

Hold on!! The transformer is in series with Q5's collector, not in parallel, right? Even looking at the Handbook's equivalent circuit for a transformer, all the elements are series (except for stray capacitances).

You then again say that T4's reactance is also "...in parallel with (transformed) load of Q6..." Again, I don't see any parallel circuit here; the secondary of T4 is in series with the base of Q6, which presents the load.

>From Glen to Paul:

>I noticed that many example circuits use a tuned tank at the output, putting a cap across the transformer. Why not here?

Yes, a tuned collector load could work. It'd be pretty low Q because of the low impedances involved. But still, the tuned circuit might require a trim-capacitor to resonate at 7MHz. Costs more, and its another tuning stage that builders can mis-align. The broad-band transformer that Dave uses is cheap, requires no tuning, and has about the same performance.

>

>You say, "since T4's inductive reactance is in parallel with Q5's

>collector..."

>Hold on!! The transformer is in series with Q5's collector, not in parallel,
>right? Even looking at the Handbook's equivalent circuit for a transformer,
>all the elements are series (except for stray capacitances).

Didn't mean to add confusion.

I've pulled out the only Handbook available,(1978) and am referring to their audio transformer modelling discussion...

The Handbook talks about a few different loss mechanisms in their transformer: due to magnetizing current, leakage current, and winding resistance losses, and core losses. In the '78 book, they show the transformer model you've described:

It shows R_c (core losses) in parallel with the primary

It shows R_p (primary wire resistance) in series

It shows X_p (leakage inductance loss) in series

Then it shows an ideal transformer labelled "PRI" and "SEC"

On the secondary side:

It shows X_s (leakage inductance loss) in series

It shows R_s (winding resistance loss) in series

Then the transformer model's output E_s .

I looked for a more RF specific model that included some stray capacitances but didn't find any. In our application (T4) this model is OK because the coupling coefficient between primary and secondary is almost 1.0

However, the model shown doesn't discuss the path for magnetizing current. Since coupling is tight, X_p and X_s are small. And R_p and R_s are small too, since we have so few turns.

Consider what happens in the extreme case where we disconnect the load. Secondary current goes to zero. Its a pretty good approximation to assume the whole secondary part of the transformer disappears.

So you're left with R_c , R_p , X_p and the primary winding "PRI".

What isn't discussed in the '78 Handbook clearly is that in this model, some current still flows thru the primary side in this case. It flows around thru PRI, and is mostly inductive in nature (meaning that the primary voltage leads primary current by close-to-90-degrees).

This is the magnetizing current.

And we'd like this current to be small, compared to the primary current that flows when the load IS connected.

To accomplish this, we need to have the inductance of PRI to be much larger than the transformed load resistance. This is where the "rule-of-thumb" of $\times 5$ to $\times 10$ comes in, to make magnetizing current 5 to 10 times lower than transformed load current.

OK, now back to the T4 being in parallel with the collector....

I consider that the collector output voltage is measured with-respect-to ground.

For RF purposes, the top end of T4 is at ground too, because of the bypassing effect of C111 and C110. So in my mind, T4 is actually in

parallel with Q5's collector. Most times, the supply voltage and ground are the same for AC signals. Make SURE you see this...its REALLY important.

>You then again say that T4's reactance is also "...in parallel with
>(transformed) load of Q6..." Again, I don't see any parallel circuit here;
>the secondary of T4 is in series with the base of Q6, which presents the load.

The secondary winding of T4 is in PARALLEL with its load.
I think we'd both agree that D6 is in parallel with R29. Can you see that the base of Q6 is in parallel as well? If so, then you'll have to agree that the secondary winding of T4 is in parallel as well. I'm mentally shorting out C35, because its a very low impedance for RF.

[[end of log]]

End of QRP-L Digest 1123
